Lab 7 – REST Web API
CS296N, Web Development 2: ASP.NET

Objectives
Gain experience:

- Creating a Web API
- Testing REST endpoints with Postman

Part 1: Tutorial
Do the tutorial: Tutorial: Create a web API with ASP.NET Core MVC.
Do all of the tutorial except "Call the API with JavaScript" and following.

Report what you did for this exercise by entering the appropriate phrase in the online text of the Moodle assignment:
- "Ran it", means you downloaded and successfully ran the completed code.
- "Studied and ran it", means you successfully ran the completed code, but put in breakpoints and examined what was happening at all the critical points in the code.
- "Coded it, studied it and ran it", means you added the code as shown in the tutorial, studied it (set breakpoints and examined variables), and got it to run successfully

Part 2: Your Own Web API
A) Create an ASP.NET Core Web API project that provides all the functionality of your previous lab's web app but with no GUI (no web page).

This Web API will have REST endpoints for the HTTP verbs listed below. Use the conventional REST URL format of domain/service/parameter. For example, a PUT request might look like:
`http://localhost:5000/api/Book/5`

- GET
- POST
- PUT
- PATCH
- DELETE

B) Test each endpoint using Postman. Take a screenshot of each test showing the response or copy/paste the request and response into a document.

C) Publish your Web API to an online web server.

Written by Brian Bird, Lane Community College, Fall 2017, revised Winter 2019

Submission to Git and Moodle

<u>Git Branch</u>

- All your work should be done on a branch named *lab7-WebApi.*

- Write a document titled *lab7-WebApi.md*, or .txt that lists the features you implemented. Put this in a folder named *docs* in the top level of your lab repository.

<u>Code Review</u>

1. Using GitHub, send a pull request to another student asking them to review your code. After you have gotten a review, and finished revising your code, merge it into the master branch. Keep the lab branch, don't delete it.

2. You should get a pull request from the other student. Review their code and paste the review form into the comments of their pull request.

3. In the "online text" field of the Code Review assignment on Moodle, enter the URL of the pull request you responded to and which contains the review you gave.

<u>Production Version</u>

1. In the "online text" for the Moodle assignment:

   a) Report what you did for part 1.

   b) Paste a link to your GitHub repository and branch for part 2.

2. Upload the code review document containing a review of your code.